

해외출장복명서

기 간: 2018.07.30. ~ 2018.08.03

출장지: 라오스

출장자: 김대중, 한우석

I. 출장개요

1. 출 장 지: 라오스

2. 출장기간: 2018.07.30.(월) ~ 2018.08.03.(금)

3. 출 장 자

소속	직급	성명	비고
국토연구원	연구위원	김대중	-
국토연구원	책임연구원	한우석	-

4. 출장목적

라오스 자연자원환경부 초청자부담으로 워크숍 발표, 현장조사 및 코이카 사업 PCP 작성을 위한 자문 등을 수행

II. 출장일정

일정 (요일)	출발지	도착지	업무수행내용	접촉예정인물 (직책포함)
7월30일(월)	인천	라오스	(19:40) 인천 출발 (22:55) 라오스 비엔티엔 도착	
7월31일(화)			(10:00-18:00) 라오스의 기후변화 재해저감을 위한 방재정책 발전방향 워크숍	천연자원환경부 Sangkhan Thiangthammav ong 국장
8월1일(수)			(09:00 ~ 15:00) 주요 사례지역(xaythany district 등) 현장조사 (15:00 ~ 18:00) 관련 공무원 및 전문가 업무협의회	Syamphone Sengchandala 과장 Amphayvanh Oudomdeth 과장
8월2일(목)	라오스		(09:00 ~ 18:00) 코이카 사업 지원을 위한 PCP 작성 관련 자문회의 및 PCP 작성 (23:50) 라오스 비엔티엔 출발	Vongdeuane 과장 Kongham Sourigna 과장 Somchaivang DethouDom 박사
8월3일(금)		인천	(06:50) 인천 도착	

III. 수행사항

1. 워크숍

□ 제목 : 라오스의 기후변화 재해저감을 위한 방재정책 발전방향 워크숍

□ 일시 및 장소 : 2018. 7. 31(화) / 라오스 천연자원 환경부 회의실

□ 참석자

(원내) 김대중 연구위원, 한우석 책임연구원

(원외) Sangkhane Thiangthammavong 국장, Syamphone Sengchandala 과장, Amphayvanh Oudomdeth 과장, Vongdeuane 과장, Kongham Sourigna 과장, Somchaivang DethouDom 박사 등 라오스 천연자원 환경부 공무원 및 전문가, 조준희 상무(삼부 엔지니어링) 등

□ 개최배경 : 라오스에서는 최근 홍수를 포함한 대형 자연재해 발생 빈도 및 강도가 증가하고 있어, 관련 대책 마련이 시급함. 라오스의 재해 및 방재정책 현황과 한국의 기후변화 대응 관련 정책 및 기술 등을 상호공유하고 향후 공동사업 수행 방향에 대한 논의 수행

시간	내용	발표자 및 토론자	비고
10:30~10:40	축사	Sangkhane 국장	라오스 천연자원 환경부
10:40~11:30	Summary policies and activities on climate change and disaster in Laos	Syamphone Sengchandala 과장	라오스 천연자원 환경부
11:30~13:30	점심식사		
13:30~14:30	Urban disaster prevention coped with climate change effect in Korea	한우석 박사	국토연구원
14:30~15:30	NSDI and applications responding to climate change	김대중 박사	국토연구원
15:30~16:00	토론		

□ 주요 발표 내용

- 1) 발표 1 : Summary policies and activities on climate change and disaster in Laos (Syamphone Sengchandala 과장)
 - 최근 라오스의 기후변화 및 자연재해 발생동향
 - 라오스의 국제 협력 관련 연구 및 프로젝트 진행 동향
 - 라오스의 주요 방재관련 정책 현황 및 방향 제시

- 2) 발표 2 : Urban disaster prevention coped with climate change effect in Korea (한우석 박사)
 - 한국의 기후변화 및 자연재해 발생 동향
 - 도시방재 계획의 중요성
 - 한국의 주요 도시방재 기술 및 정책 동향
 - 도시복원력 관련 연구 동향

- 3) 발표 3 : NSDI and applications responding to climate change (김대중 박사)
 - 기후변화 재해 대응 Geospatial 접근 방법 소개
 - NSDI 개념 및 정책
 - NSDI 응용사례
 - NSDI 주요 서비스

- 4) 종합토론
 - 라오스의 재해 발생 현황 및 향후 문제점 논의
 - 한국의 주요 도시방재정책을 라오스에 적용하는 방향 논의

□ 현장사진



□ 발표자료

<p style="text-align: center;">Summary policies and activities on Climate Change and Disaster in Laos</p>	<p style="text-align: right;">14</p> <p style="text-align: center;">Key Policies and activities</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>UNITED NATIONS CLIMATE CHANGE CONFERENCE DEC 7-DEC 18 2009</p>  </div> <div style="width: 50%;"> <ul style="list-style-type: none"> • Lao PDR endorsed UNFCCC in 1995: <ul style="list-style-type: none"> ➢ As a framework of legal and cooperation at international level; ➢ Commitment, responsible and assistance from Developed to Developing (included LDC) countries • Kyoto Protocol (KP) in 2003: <ul style="list-style-type: none"> ➢ Commitment 5% of GHG Mitigation based year 1990 for developed countries; ➢ Commitment, responsible and assistance from Developed to Developing (included LDC) countries; • Ministry of Natural Resources and Environment (MONRE) as the National Focal Point for UNFCCC and KP; </div> </div>
<p style="text-align: center;">Urban Disaster Prevention coped with climate change effect in Korea</p> <p style="text-align: center;">2018.07.31</p> <p style="text-align: center;">WooSuk Han Ph.D Associate Research Fellow</p> <p style="text-align: center;">KRIHS  국토연구원</p>	<p style="text-align: center;">Workshop on Enforcement of the Urban Safety coped with Natural Disaster triggered by Climate Change</p> <p style="text-align: center;">NSDI and Applications responding to Climate Change</p> <p style="text-align: center;">2018. 7</p> <p style="text-align: center;">Daejong Kim(Ph.D)</p> <p style="text-align: center;">Korea Research Institute for Human Settlements</p> <p style="text-align: center;"> KRIHS 국토연구원</p>

2. 주요 홍수피해 현장조사

□ 일시 및 장소 : 2018. 08. 01(수), Vientiane, xaythany district 등 피해지역 일대

□ 사례도시 현황

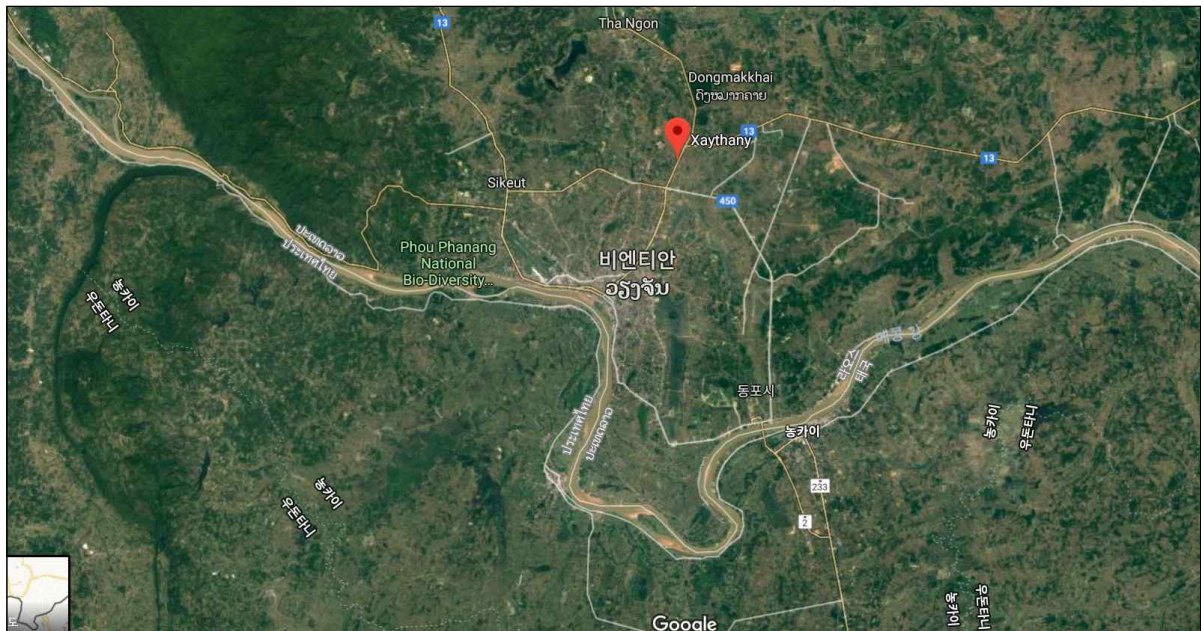
1) 비엔티안 (Vientiane)

- 비엔티안은 라오스의 수도로 인구 75만 여명이 거주하는 라오스 최대 도시임
- 비엔티안은 메콩강과 인접하고 있으며, 주변이 저지대로 매년 우기시에 크고 작은 홍수피해가 발생하고 있음

2) Xaythany District

- Xaythany District는 비엔티안의 북쪽에 위치한 인구 10만명 규모의 위성도시이며, Xaythany District도 메콩강 지류가 인접하고 있으며 저지대가 넓게 분포하고 있어 매년 우기시 크고 작은 홍수피해가 빈번하게 발생

□ 비엔티안 및 Xaythany District 지도



□ 현장조사 사진



3. 코이카 사업 지원을 위한 PCP 작성 관련 자문회의 및 PCP 작성

□ 일시 및 장소 : 2018. 08. 02(목), 라오스 천연자원 환경부 회의실

□ 참석자

(원내) 김대중 연구위원, 한우석 책임연구원

(원외) Sangkhane Thiangthammavong 국장, Syamphone Sengchandala 과장, Amphayvanh Oudomdeth 과장, Vongdeuane 과장, Kongham Sourigna 과장, Somchaivang DethouDom 박사 등 라오스 천연자원 환경부 공무원 및 전문가, 조준희 상무(삼부 엔지니어링) 등

□ 개최배경 : 라오스에서는 기후변화와 도시난개발 등으로 도시내 홍수위험은 가중되고 있어, 체계적인 대책마련이 필요함. 한국의 경우 기후변화 도시 재해취약성 분석, 재해 예방형 도시계획 등 기후변화 대응 도시방재 기술 및 정책을 수립 및 운영 중에 있음. 라오스에서는 코이카 펀드를 활용하여 한국의 도시방재 관련 기술 및 정책을 도입하는 프로젝트 수행을 요망

□ PCP에서 기획한 주요 Area 및 Activities

- The development of urban disaster prevention technology and policy
 - Flood Inundation Analysis
 - Disaster vulnerability assessment technology customized to Lao PDR
 - Urban planning strategy considering disaster prevention

- The development of data and system
 - Building spatial data
 - Development of urban disaster prevention supporting system

- The strengthening of disaster prevention capacity
 - Improvement or introduction of laws and systems related to urban disaster prevention
 - Disaster prevention training for public official and engineers

□ PCP 작성을 위한 자문 및 작성회의



□ 라오스 기후변화 방재관련 주요 정책 및 연구자료



[부록] 코이카 PCP



Logo of your organization

Project Title (Duration/ Budget)

Name of Partner Country

Project/Program Concept Paper

DD, MM, YYYY,

<i>Applicant Information</i>	
Name	
Position	
Organization	
Telephone	
E-mail	
Address	

PROJECT/PROGRAM CONCEPT PAPER (PCP)

SECTION 1. BASIC PROJECT INFORMATION		
1.1	Country	
1.2	Title	
1.3	Region(s)/Location(s)	
1.4	Duration	<i>XX months (2019-20XX)</i>
1.5	Budget (total)	<i>US\$ XX million</i>
	- KOICA funding	<i>US\$ XX million</i>
	- Partner government funding	<i>US\$ XX million</i>
	- Other donor funding	<i>US\$ XX million</i>
1.6	Objectives	
1.7	Beneficiary	
1.8	Implementing organization	<i>Name :</i>
	- Type	<i>Please check a type of the implementing organization in the boxes.</i> <i>Central/national government</i> <i>Provincial government</i> <i>Public organization</i> <i>Others..... [please specify]</i>
	- Major functions	
	- Annual budget	
	- Number of staff	
1.9	Is this a resubmission of a previous PCP?	<i>Yes/No</i>

SECTION 2. PROJECT DESCRIPTION

Objectives/Outcome/Outputs: Please outline the objectives, the expected outcomes, and outputs of the Project. Please provide the detailed information as an annex 2(Project Design Matrix). If relevant, gender equality/women's empowerment can be manifested as one of the objectives or sub-objectives.

Activities: Please describe what will be carried out in terms of planned activities, their timing and duration, and who will be responsible for each activity. It should indicate the sequence of all major activities and implementation milestones. Please provide the detailed information as an annex 3(Project Work Plan)..

SECTION 3. PROJECT RATIONALE	
SI	<p>SITUATION ANALYSIS: Please provide a brief introduction to the current social and economic situation related to the Project (geographic region and beneficiaries, etc.)</p>
	<p>PROBLEM TO BE ADDRESSED: Please describe the problem or critical issue which the project seeks to resolve, how the problem was identified, and how will the Project address the problem. If relevant, analysis on gender equality needs to be described.</p>
	<p>COUNTRY DEVELOPMENT STRATEGIES AND POLICIES: Please describe how the Project relates to other relevant national development strategies and policies, and provide the ongoing status of their implementation, results and effects, if any.</p>
	<p>JUSTIFICATION FOR INTERVENTION: Please describe how the need for the</p>

	<p>Project was determined, and what the rationale/justification for the Project (why the Project is considered to be the most effective way the problem is resolved.).</p>
	<p>LESSONS LEARNED: Please describe what lessons Partner Country has drawn on (from Partner Country's own and other's past experience) in designing this Project.</p>

SECTION 4. STAKEHOLDER ANALYSIS	
	<p>TARGET BENEFICIARY: Please describe the following information: a) direct and indirect/wider beneficiary group, b) number of beneficiary, with gender segregation if necessary (e.g. 300 children rather than children in 3 schools), c) how the target group was identified, d) why they were selected as target group, e) how intended beneficiaries have been involved in Project design, and their expected role in Project implementation and evaluation. If relevant, the target group needs be disaggregated by sex.</p>
	<p>OTHER STAKEHOLDERS: Please describe other stakeholders (e.g. partner government agency, international organization, NGO, donor agency, etc.), if any, including a) name/group, b) respective role(s) and cooperation/coordination mechanism, etc.</p>

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SECTION 5. PROJECT MANAGEMENT AND IMPLEMENTATION

PROJECT MANAGEMENT: Please describe a) who will be responsible for planning and management of the Project operations as well as coordinating other bodies and organizations associated with the Project, b) what arrangements will be established to ensure that there will be effective coordination with other relevant programs and activities.

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MANAGEMENT OF CONSTRUCTION WORK (IF ANY): Please specify purpose of the building, total floor area, site location, estimated construction duration and budget and O&M plans.

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SECTION 6. SUSTAINABILITY

Please describe whether Project operations are expected to continue, or expand to other areas or sectors, once the current phase of assistance is completed. This could include plans for introducing self-financing provisions to ensure continued viability of operations on Project completion.

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SECTION 7. MONITORING AND EVALUATION	
	<p>Please include proposed mechanisms and procedures for monitoring of Project operations to ensure that activities occur as planned, that they remain directed towards stated objectives, and that appropriate corrective action is taken if required.</p> <p>Specifically, please indicate who will be responsible for preparing periodic Project progress and final technical reports and for the accounting of expenditures, if needed, as well as how intended beneficiaries will be involved.</p>
SECTION 8. RISK AND ASSUMPTION	
	<p>Please identify and list the major risk factors that could result in the Project not producing the expected results. These should include both internal and external factors. Please also propose risk mitigation measures to address the potential risks.</p>

The following documents as annex are required to be submitted with a PCP.

- Annex 1. Project Location Map**
- 2. Project Design Matrix**
- 3. Project Work Plan**
- 4. Estimated Budget Sheet**
- 5. Environmental Screening Checklist**
- 6. Gender & Development Screening Checklist**

Annex 1. Project Location Map

Annex 2. Project Design Matrix

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS AND RISKS
Objectives			
•	•	•	•
Outcomes			
•	•	•	•
Outputs			
•	•	•	•
Activities	Inputs		
•	•		

Annex 3. Project Work Plan (Sample)

Description	Year One				Year Two				Year Three				Year Four				Year Five			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Signing R/D																				
Establishment of Project Implementation Plan																				
Project management Selection of PC and dispatch of PM																				
1.Strengthening capacity for health providers																				
Activity 1:																				
Activity 2:																				
2. New infrastructure and essential equipment and supplies for MNCH established																				
Activity 3: : Renovation of health centers																				
Activity 4: Provision of medical equipment and supplies of MNCH																				
Activity 5: Provision of essential medical kits for EmONC and essential newborn care																				
3. Systematizing Referral system																				
Activity 6: Provision of ambulances and essential equipment																				

Annex 4. Estimated Budget Sheet

Instruction

● Breakdown of Project Cost

- Dispatch of Experts: Costs for sending experts to recipient organizations for technical cooperation and capacity building. (including reimbursable expenses such as on-site operational costs)
- Construction: Costs for design, construction, supervision and Construction Manager (CM), if the project has an activity that involves construction.
- Equipment: Costs for providing and installing equipment, including education costs.
- Invitational Training: Costs for capacity building activities in which partner country officials are invited to Korea to learn about Korea's development experiences and draw lessons for their country.
- Informationalization: Costs for business process reengineering and information strategy planning (BRP/ISP), system development and supervision, if the project has an activity that involves informationalization.
- Project Management: Costs for performance management, risk control, monitoring and evaluation and contingencies, which should be directly managed by KOICA.

● Information provided by the partner

Item	Necessary information
Dispatch of experts	<ul style="list-style-type: none"> ▷ Expert's technical grade (Junior-level, middle-level, senior-level) ▷ Expert's input (in M/M)
Construction	<ul style="list-style-type: none"> ▷ Building's size and space and projected costs ▷ Costs of similar buildings
Equipment	<ul style="list-style-type: none"> ▷ Item and number and whether it can be bought in the partner country ▷ Equipment specification
Invitational training	<ul style="list-style-type: none"> ▷ Type of courses (manager-level, working-level, others) ▷ Number of participants <p>* Please, note that invitation training can accommodate maximum 15 participants per course due to logistical constraints.</p>
Informationalization	<ul style="list-style-type: none"> ▷ Information system's main functions ▷ Expert's input to complete system development (in M/M)

● After reviewing the description above, the Estimated Budget Sheet should be filled out in consultation with KOICA country offices.

- Calculation Basis describes how each item of the Budget Sheet is calculated.

Item	Cost	Calculation Basis
Dispatch of Experts		Insert Expert's grade and time input (in M/M)
Junior-level Expert		
Middle-level Expert		
Senior-level Expert		
Reimbursable expenses		
Construction		Insert the size of building and cost per m ²
Design		
Construction		
Supervision		
CM		
Contingency		
Equipment		Insert item, number and specification (Equipment may be listed in a separate sheet if there are too many)
Invitational Training		Insert courses and the number of participants
Management-level course		
Working-level course		
Other special course		
Informationalization		Insert system's main functions and expert's input (in M/M)
Project Management		5% - 10% of total project cost
TOTAL		

Annex 5. Environmental Screening Checklist

Question 1. Related environmental impacts

1-1 Will the project include new construction or enlargement or repair of building?

Yes No

1-2 Will the project change geographical features or land use?

Yes No

1-3 Will the project use or develop water resources?

Yes No

1-4 Will the project produce waste?

Yes No

Question 2. Requirement of Environmental Impact Assessment (EIA)

2-1 Does the host country have Environmental Impact Assessment (EIA) related laws or guidelines?

Yes No

2-2 Is EIA required for the project according to the laws or guidelines in the host country?

Yes No Unknown

2-3 If the EIA is required, please mark the corresponding item.

Implemented On going Planning

Question 3. Project's sensitive features

3-1 Does the project come under following sectors?

Yes No

If yes, please mark the corresponding items.

Hydropower, dams and reservoirs Urban development

Roads, railroads and bridges Airports, ports and harbor

Water supply, sewage treatment Solid waste treatment

River/Sand control Power transmission and distribution lines

Mining development Industrial development

Forestry Fishery Tourism

Agriculture (large-scale land-clearing or irrigation)

3-2 Is any of the following area located on or around the project site?

- Yes No

If yes, please mark corresponding items.

- National park
- Protected area designated by the government (cultural heritage)
- Protected area designated by the government (coastal zone, wetlands, reserved area for ethnic or indigenous people)
- Habitat of valuable species protected by domestic laws or international treaties
- Virgin forests, tropical forests
- Buffer zone of protected area
- Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)
- Likely salts cumulus or soil erosion areas on a massive scale
- Remarkable decertification trend areas
- Archaeological, historical or cultural valuable areas
- Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle or special socially valuable areas

Annex 6. Gender & Development Screening Checklist

Question1.	Women/Girls as beneficiaries or participants
1-1	Does this project include women or girls as a target group as direct or indirect beneficiaries? <input type="checkbox"/> Yes <input type="checkbox"/> No
1-2	Do women or girls participate in implementing process as one of the decision makers? <input type="checkbox"/> Yes <input type="checkbox"/> No
1-3	Did this project proposal complete based on the needs assessment of men and women/boys and girls? <input type="checkbox"/> Yes <input type="checkbox"/> No
Question 2.	Relevance to women's empowerment
2-1.	What are the key gender issues in the sector/subsector that are likely to be relevant to this project or program? _____
2-2.	Does the proposed project or program have the potential to make a contribution to the promotion of gender equity and/or empowerment of women by providing women's access to and use of opportunities, services, resources, assets, and participation in decision making? <input type="checkbox"/> Yes (→2-2-1) <input type="checkbox"/> No
2-2-1	If yes, what measures are included in the project design to promote gender equality and women's empowerment— <input type="checkbox"/> Gender action plan <input type="checkbox"/> Other actions or measures <input type="checkbox"/> No action or measure
2-3	Can the proposed project have an adverse impact on women and/or girl or widen gender inequality? <input type="checkbox"/> Yes <input type="checkbox"/> No
2-4	Indicate the intended gender mainstreaming category*: <input type="checkbox"/> GEN (gender equity) <input type="checkbox"/> EGM (effective gender mainstreaming) <input type="checkbox"/> SGE (some gender elements) <input type="checkbox"/> NGE (no gender elements)

○ GEN : Gender Equity

- A project is assigned GEN, if the project outcome directly addresses gender equality and/or women's empowerment by narrowing gender disparities through access to social services(e.g. education, health, and water supply/sanitation); and/or economic and financial resources and opportunities (e.g. employment opportunities, financial services, land, and markets), and/or basic rural and urban infrastructure(e.g. rural electrification, rural roads, pro-poor energy distribution, and urban services for the poor); and/or enhancing voices and rights(e.g. decision making process and structures, political empowerment, and grievance mechanisms); and,
- the outcome statement of the project design and monitoring framework(DMF) explicitly mentions gender equality and women's empowerment and/or, the outcome performance indicators include gender indicators.

○ EGM : Effective Gender Mainstreaming

- A project is assigned EGM, if the project outcome is not gender equality or women's empowerment, but project outputs are designed to directly improve

women's access to social services, and/or economic and financial resources and opportunities, and/or basic rural and urban infrastructure, and/or enhancing voices and rights, which contribute to gender equality and women's empowerment.

○ **SGE : Some Gender Elements**

- A project is assigned SGE, if it meets either of the following:

(i) by its nature it is likely to directly improve women's access to social services; and/or economic and financial resources and opportunities, and/or basic rural and urban infrastructure, and/or enhance their voices and rights(e.g. education, health, rural development, microfinance, water supply and sanitation, food security, and emergency food and rehabilitation assistance), but that included little, if any gender analysis and few or no specific design features; and did not meet the EGM criteria, or

(ii) is unlikely to directly improve women's access to social, economic or financial resources or opportunities, but significant efforts were made during project preparation to identify potential positive and negative impacts on women. Some gender features are included to enhance benefits to women(e.g. targets for employment of women in project construction work, provision of equal pay for equal work, information campaigns on HIV/AIDS risk, gender training of executing/implementing agencies, and adherence to core labor standards, esp. child labor); and where resettlement is involved includes attention to women in the mitigation/resettlement plans(such as compensation payments to both men and women, joint-ownership of replacement land/housing, restoration of livelihood initiatives for women, and so forth).

○ **NGE : No Gender Elements**

- A project is assigned NGE, when it does not include any gender design features(e.g. no indicator or goal for gender equality, no women's participation or empowerment, no resource or no opportunity for women, etc.).

**Sourced from ADB (2012) Guidelines for Gender Mainstreaming Categories of ADB Projects*